

SAPPING AND MINING AT DERBY.

The influence of the Central Board of Health on local boards, in inducing, or rather compelling them to employ the sappers and miners in making surveys and sewerage maps, &c. of the towns under their sanitary guardianship, has been rather too successfully exerted, it would appear, in various instances; but recent doings at Derby are at length likely, if we mistake not, to bring this influence to such an issue as will at least limit its undue exercise, whatever force the order of the Central Board to employ the Ordnance in attesting surveys already made may still continue to exert upon the local boards. The Derby Council constituting the Board of Health for that city, have appealed to counsel for advice on the subject, and it is the decided opinion of Mr. Peacock, who was consulted, that "the local board cannot legally enter into any engagement with the Board of Ordnance." It remains to be seen what the Central Board will say to this. The opinion of the eminent counsel consulted in this case is to be communicated to the board for their opinion or decision on the point. As remarked by the *Derby Mercury*, which is warmly espousing the cause of the general profession of civilian surveyors, and of the local members of that profession in particular in the present instance, "the Boards of Health in many towns have at once tamely submitted to the dictation of the General Board in London, for fear of 'getting into difficulties';" but the most difficult part of the business now may be to get clear of their engagements with the Ordnance." There is but too good reason for the surveying interest throughout the country to be on the alert, however, and to take instant advantage of the present posture of affairs if they can; for it is feared that "as an engagement cannot legally be made with the Board of Ordnance, some individual may be put forward on its behalf as a scape-goat."

NOTES IN THE PROVINCES.

The bells of Wilburton Church, in the Isle of Ely, have been recast and rebung on a new principle, with new frame-work, &c., at the expense of Lady Pell. Mr. G. Benstead was the contractor, and Messrs. Taylor and Son, of Loughborough, the bell-founders.—A new engine and engine-house have lately been erected at Flood's Ferry, Doddington, for the drainage of the Ransmoor district in that parish. The building, with a shaft 70 feet in height, was erected by Mr. Richard Freeman, of Ely, builder; and the surveyor employed by the Commissioners was Mr. George Allen, of St. Ives, architect. The engine is a forty-horse-power expansive condensing engine, with a scoop-wheel 34 feet in diameter, and 24 inches blade, with two boilers, and many of the modern improvements lately introduced into drainage engines. The engine was designed, erected, and fixed by Messrs. Beecroft, Butler, and Co., of Kirkstall Forge, near Leeds, engineers.—A dispute between the Directors of the Albert Pier Company, Portsea, and Mr. Rolt, has been brought to a conclusion. For work not in the contract, it appears Mr. Rolt claimed 4,000*l*. After repeated attempts at arrangement it was referred to arbitration, and after a very lengthened investigation, it has been decided that Mr. Rolt shall receive 1,000*l*., each party to pay their own expenses, which will be very considerable.—The erection of a chapel at Winchester, for the accommodation of the troops in the garrison there, it is expected, will be commenced early in the spring. The extreme length will be 132 feet. It is also intended to erect a house for the military schoolmaster.—The Sherborne vestry have resolved to apply to the Commissioners of Public Works for a loan of 2,000*l*. of the sum (4,000*l*.) necessary for the repair of the central tower and its piers and arches, and of the north transept of the church. A protest has also been made against the resolution.—The Plymouth baths and wash-houses, which have been in operation twelve months, have succeeded beyond the most sanguine expectations of the promoters.—The governors of the Free Grammar School, Birmingham, have presented a site for the erection

of a new church in the vicinity of Ladywood.

—The North and South Wales Bank, according to the *Liverpool Advertiser*, have determined to build four villas in Birkenhead-park, as an experiment, with a view, we presume, to the erection of more if successful. It is understood that Mr. Arthur Holme is to be the architect, and Messrs. J. and W. Walker, of Birkenhead, the builders.—The Unitarians, it is said, are about to erect a chapel in the vicinity of Grange-lane, Birkenhead.—The foot-walk from the north gate of George's Dock, at Liverpool, to the Landing-stage-bridge, is now nearly completed. It is formed of Scotch granite sets, according to the local *Times*, the sets being laid upon a bed of macadam, upon which grout is plentifully poured. The interstices of the sets are then filled up with grout, and after some time has been allowed for the mass to harden, the whole surface is carefully examined, in order that cavities which the grout has imperfectly reached may be filled up.—A dividend of 10 per cent. has been recently declared by the gas company at Blackburn, Lancashire, and the accounts show that, in January last, there was a balance in the bankers' hands of 1,037*l*. 16*s*. 11*d*., and that during 1850, 4,100*l*. 14*s*. 2*d*. had been expended in putting down a telescope gas holder, cast-iron tank, new tar-pits, coals, &c.—The old shambles in the market-place at Middleton, Rochdale, have been pulled down. It is conjectured that Messrs. Peto and Betts, the owners of the estate, are intending to erect a new market. Preparations are being made for more buildings than have been erected for many years past, both in Tonge and Middleton.—The new Catholic School at Lancaster is now completed. It is in the Early English style.—The largest cotton-mill in Lancashire ever built at one time, it is said, has recently been erected by Mr. John Mayal, of Bottoms, Mossley. It is 137 yards long by 26½ wide, inside measure. It will give employment to many hundred hands. The mill is 43 windows in length, and six stories high. The engine is upwards of 100-horse-power.—The estimated cost of repairing the Barrow monument, at Ulverstone, is 140*l*., of which more than one-half is still to be subscribed for.

WATER SUPPLY.

ENORMOUS sums of money have been disbursed by the great community of Great Britain in the construction of public works: those of the metropolis have been large—the bridges almost incalculable—the Houses of Parliament, museums, columns, and other non-utilitarian monuments beyond conjecture; and throughout the country, within twenty years, the expenditure on the media of commercial intercommunication—railroads—has exhausted millions! Many of these great works were, in our age of improvement, indispensable; none of them without their utility in the expansion of wealth and science; but it is hardly reconcilable to the understanding that whilst the ornamentation of the capital, or the utilising of increased ways, demanded and obtained so large an outlay, yet that the greatest want, the most vital necessity of a populous city (the most populous and richest in the world) should have been all this time unimproved, if not wholly neglected.

The water supply for two breathing millions is yet, as to quality, no better than it was 100 years ago: nay, it is rather worse, for any additional sources have been deduced from the Thames within the reach of sewage discharges, and that supply is now less pure than formerly, when the taint of impurity resulted from a civic and rural population of not more than one-fourth of that now existing, which defiles the stream whilst it calls for more.

For the consummation of any magnificent structure funds are never wanting: a colossal design, the triumph of engineering, is planned to connect Angles with the main land—the object is but to save half an hour in the transit of mails or passengers, but to connect the magic rails of flying transit,—and straightway from 200,000*l*. to 300,000*l*. sterling are subscribed to effectuate the stately conception. And yet with such facts before us it is quite incom-

prehensible wherefore, in cases of crying necessity,—cases wherein the health, comfort, and prosperity of two millions of souls packed densely within a circuit of a nine-mile traverse are at stake,—a less sum than was required for the completion of the Houses of Parliament should not have been funded for the perfection of this great city in the essential particulars of water supply and sewage.

Two years have elapsed since the cry of suffering humanity proclaimed to the Legislature that the pipe water-mains not only conveyed an inadequate quantity, but that the quality of the element was of a vitiated nature; that instead of healing, it bore disease into the heart of society, and was in itself pestiferous. Two years since, the ravages of disease carried off by thousands the dwellers in the vicinity of undrained swamps; for the mortality of cholera was not only traceable through the filaments of foul water-pipes, but was also demarcated by the stagnant ditches, the feculent water-courses, and the lay-stalls where putrescence was suffered to accumulate in poor, disregarded neighbourhoods.

Prayers for deliverance were then offered up at the altars of religion, but the energies of man have not as yet been applied to the redress of these evils; and we are little less exposed than ever to another visitation from the same uncorrected causes.

In New York, a population of 200,000 has disbursed as many pounds sterling to convey into that city a limpid and all-sufficient flood of living water. Liverpool, Manchester, and Plymouth, and others of our towns, have taken the start of London, and conveyed incessant rills to the house-tops of their limits: still London continues inert, and the echo of voices so lately clamouring for water! water! is not responded to.

Plans have been suggested (and many that are most feasible),—commissions have been formed, and corporate councils held; still we are as in the beginning, debating, complaining, and planning. Yet no measures have been carried into effect, nor (as far as the public is informed) has any particular system been adopted for either of these purposes.

Is not one warning enough, or do we await another plague?

One of *THE BUILDER'S* correspondents propounded some months back a bold and grand project, which contemplated to supply not only London, but several towns on the line, with a copious flow of pure soft water. His gathering grounds were those constructed by nature—the Welch mountains, and his fountain, the exhaustless Lake of Bal.

By natural gravitation, and, therefore, without the aid of machinery, all London might receive a bounteous tribute to its highest culminating points,—the ball of St. Paul's, or the, as yet, undefined pinnacles of the Victoria Tower,—very habitation, however meanly situated or humble, might draw incessant fountains of that element which nature distributed freely for the use of all.

The gathering grounds of these waters are the lofty reaches of slate formations in the Welch mountains,—high in the winter's snows and summer's rain: rills blanched and weather-beaten pour a never-failing torrent into the lake.

It may appear difficult or costly to conduct a stream some 140 miles; yet if aqueducts can be formed twenty miles or more, why not ten times twenty? Cylindrical ducts in iron, cased, if necessary, in gutta percha (so as to be secured from rust or waste), might be laid six or more feet underground, traversing the country direct, or by the most convenient ranges: these need not interfere with any superficial interests: laid under a plough-land, the team would pass harmless over,—the same through a pasture-field or through a hamlet—the line being demarcated, as are parochial bounds, by stones or posts. For this mode of practication the cost would be but trifling: in fact, the valuation of damage would amount to no more than the temporary suspension of agriculture whilst the pipe-laying was in progress. Two four-foot pipes would convey at high-pressure more than all Middlesex covered with houses and population might